
Neotypification of *Rumex aeroplaniformis* (Polygonaceae) Endemic to Israel

Nir L. Gil-ad

7 Bustanay Street, Jerusalem 92106, Israel. Nir.L.Gil.ad@gmail.com

ABSTRACT. *Rumex aeroplaniformis* Eig (Polygonaceae) is shown to be a validly published and legitimate name and is neotypified. *Rumex rothschildianus* Aaronsohn ex Evenari is reduced to synonymy of *R. aeroplaniformis* and is lectotypified.

Key words: Israel, Polygonaceae, *Rumex*.

Rumex aeroplaniformis Eig (Polygonaceae) was published in Eig et al. (1931: 99) in Hebrew. Eig provided the following characters (translated from the original Hebrew text) as a part of a key to the species of *Rumex* L.:

“4 (1). Lower part of fruit tepals tubular and enveloping the pedicel; upper part 3-lobed with two side lobes broad and one middle lobe narrow and shorter than the side lobes; fruit aeroplane-like; stem erect, unbranched with \pm dense terminal inflorescence; leaves (except lower) entire and sessile. [annual] Light soils. Sea shore area. March–April...*R. aeroplaniformis* Eig”

Eig (1931: 111) also published the name *Rumex aeroplaniformis* as an entry in a table entitled “1) Espèces méditerranéo-orientales (E. Med.)” On the basis of this publication only, it would seem to be a nomen nudum, as indicated by Hill et al. (1938: 243). In addition, Eig (1932: 27) listed this name in the second part of his 1931 publication.

The same species was published under the name “*Rumex rothschildianus* Aaronsohn apud Evenari” in Oppenheimer and Evenari (1940: 212) as part of a critical revision of the plants, which were collected in Cisjordan, Syria, and Lebanon and partially determined by Aaron Aaronsohn (1876–1919). Although *R. rothschildianus* was discovered by Aaronsohn as early as 1906, it was only published 21 years after his tragic death. This publication included a detailed description in Latin, two line drawings, and citations of five specimens, plus an outline of the history of the discovery of the species, Aaronsohn’s consultations with experts in Europe, and the process of the selection of the name. No reference was made to *R. aeroplaniformis*.

Of those five specimens, AAR 1654 bears the original specimen label handwritten by Aaronsohn and carries three notes handwritten by Evenari in German on AAR letterheads. The first note includes a

remark stating that there is no doubt that the plant is identical to the species Eig listed in his analytical key as *Rumex aeroplaniformis* Eig. Hence, Evenari was aware of Eig’s name and delimitation of the species.

Eig et al. (1948: 17) (published by Zohary & Feinbrun using Eig’s [1895–1938] literary estate) listed “*Rumex rothschildianus* Aarons. (*R. aeroplaniformis* Eig)” in the key to the species of *Rumex*, and thereby established the usage of the former name. Subsequently, Rechinger (1949: 32), in his preliminary work toward a monograph of *Rumex* in Asia, listed “*R. aeroplaniformis* Eig *in lit.*” as a synonym under “*Rumex rothschildianus* Aaronsohn ap. Evenari.”

Subsequent authors ignored the name *Rumex aeroplaniformis* Eig, and persistently used the name *R. rothschildianus* Aaronsohn ex Evenari. Those included: Zohary (1966, 1976/1989), Dafni and Heyn (1978), Polak (1984a, b), Feinbrun-Dothan and Danin (1991/1998), Heller and Heyn (1994), Fragman et al. (1999), Rottenberg (2001), Rottenberg and Parker (2003), and Danin (2004).

Rumex aeroplaniformis is validly published in Eig et al. (1931: 99) and is legitimate. The requirements of Arts. 32–45 of the *International Code of Botanical Nomenclature* (McNeil et al., 2006) have been satisfied. In particular, since the name was published prior to 1 January 1935, there was no requirement for a Latin description (ICBN Art. 36, McNeill et al., 2006). In addition, Eig (Eig et al., 1931) provided in his key a number of differentiating characters. Consequently, *R. aeroplaniformis* has priority over *R. rothschildianus*.

Rumex aeroplaniformis was published without a citation of a type or reference to any type material. In addition, no specimens of this species that were collected or annotated by Eig exist in HUJ. Furthermore, there is no evidence that Eig studied any of the five specimens collected by Aaronsohn and cited by Evenari (Oppenheimer & Evenari, 1940: 213), which are deposited in AAR (now in HUJ).

In the apparent absence of any of Eig’s original material (ICBN Art. 9 Note 2, McNeill et al., 2006), a neotype may be selected (Art. 9.11).

Three specimens belonging to the first collection of *Rumex rothschildianus* by Aaronsohn in 1906 and

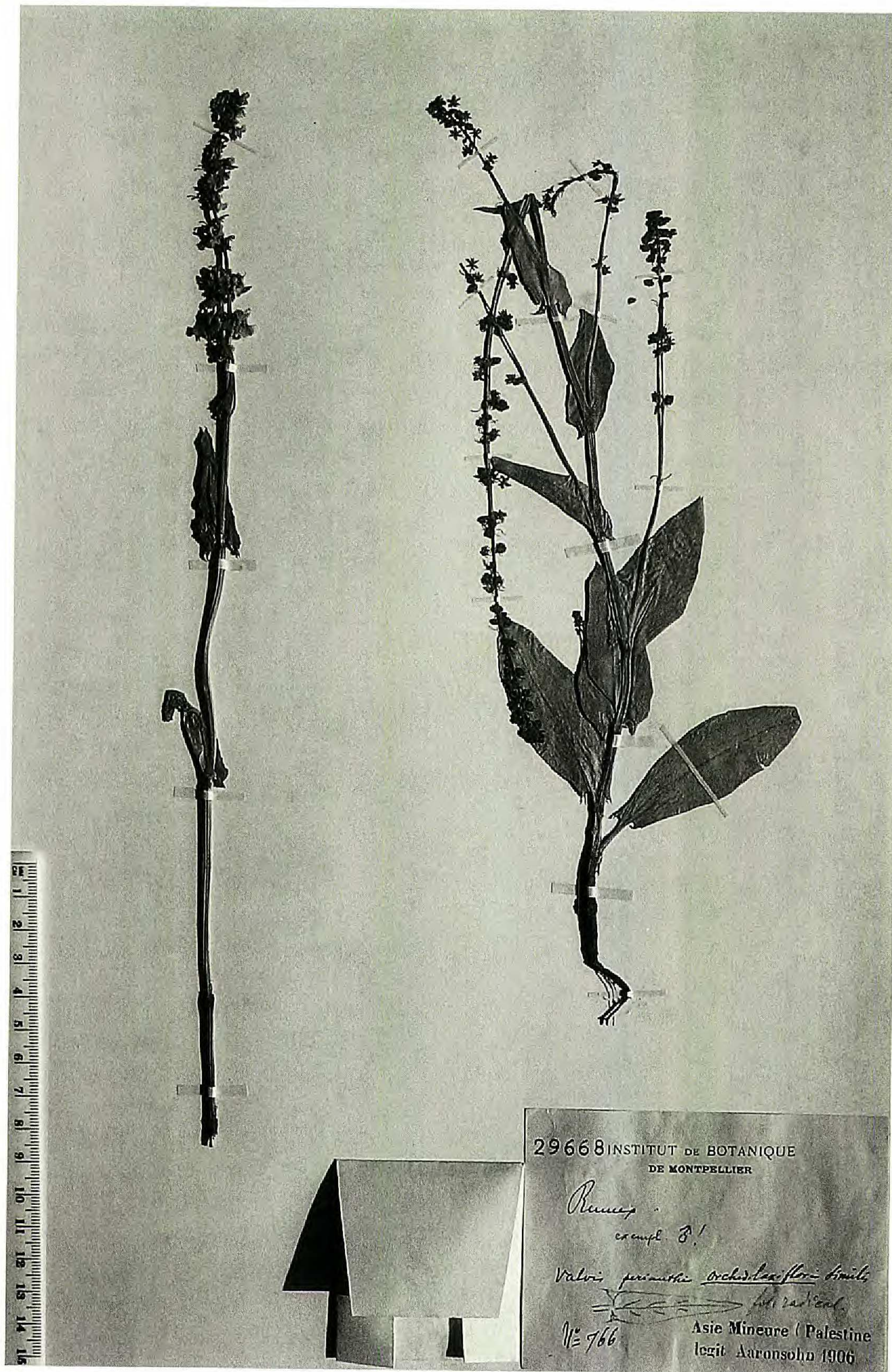


Figure 1. Neotype of *Rumex aeroplaniformis* Eig (A. Aaronsohn 766, AAR ex MPU 29668).

numbered with his original collection number (766) are deposited in AAR: AAR 1680 bearing mostly vegetative parts, ex MPU 29667 bearing a female plant, and ex MPU 29668 bearing a male plant and a female plant. The ex MPU specimens were sent in 1906 by Aaronsohn to [G., sic] Jules Alexandre Daveau in Montpellier, who in turn had them mounted and sent to Dr. G. Beauverd, Curator of the Herbarium Boissier in Geneva, for determination (Evenari in Oppenheimer & Evenari, 1940). Beauverd's hand-

written reply, dated 12 July 1906 and stating that the plant is novel, is attached to ex MPU 29667. *Aaronsohn 766* (ex MPU 29668) (Fig. 1) is the only specimen bearing both male and female plants, which are exemplary. Therefore, it is designated here as the neotype of *R. aeroplaniformis*.

Rumex aeroplaniformis Eig, Pl. Palestine Anal. Key: 99. 1931. TYPE: [Israel.] Sharon Plain: Zarkaniye, 9 Apr. 1906, A. *Aaronsohn 766*

(neotype, designated here, AAR ex MPU 29668).
Figure 1.

Rumex rothschildianus Aaronsohn ex Evenari, Bull. Soc. Bot. Genève, 2^{me} sér., 31: 212. 1940. Syn. nov. *Acetosa rothschildiana* (Aaronsohn) Á. Löve & B. M. Kapoor, Taxon 16: 520. 1967. TYPE: [Israel.] [Sharon Plain:] "Loco classico," 3 Apr. 1916, A. Aaronsohn s.n. (lectotype, designated here, AAR 1654).

Discussion. Following the reply of Dr. Beauverd, Daveau suggested to Aaronsohn to name the species *Rumex orchidioides*. AAR 1654 bears the original specimen label handwritten by Aaronsohn with "*Rumex orchidioides*" on this label, and AAR 1680 bears the same annotation on the AAR label.

Eventually, Aaronsohn did not accept that suggestion, and preferred the specific epithet "*rothschildianus*" to honor Baron Edmond de Rothschild, his benefactor (Evenari in Oppenheimer & Evenari, 1940).

Evenari did not designate a holotype in the protologue. According to Art. 9.10 (McNeill et al., 2006), in lectotype designation a syntype must be chosen if such exists. The five specimens cited by Evenari constitute the syntypes of *Rumex rothschildianus* ([Israel.] [Mount Carmel:] Zikhron Ya'aqov, 17 Mar. 1912, A. Aaronsohn s.n. [AAR 1676]; Zikhron Ya'aqov, 14 Apr. 1912, A. Aaronsohn s.n. [AAR 1678]. [Sharon Plain:] Zarkaniye, 9 Apr. 1906, A. Aaronsohn 766 [AAR 1680, ex MPU 29667]; Bourj, 1 Apr. 1911, A. Aaronsohn s.n. [AAR 1684]; "Loco classico," 3 Apr. 1916, A. Aaronsohn s.n. [AAR 1654]). Of those five specimens, AAR 1654 (on which seven female plants are mounted) bears Aaronsohn's handwritten annotation "loc. cl." (loco classico) on the original specimen label. It was annotated by Evenari with the new name plus "nova species!" on the AAR specimen label. Thus, AAR 1654 appears as Evenari's intended type of *R. rothschildianus*, and is therefore designated here as a lectotype.

Habitat and distribution. *Rumex aeroplaniformis* is a small, dioecious, annual, rare endemic species growing on light sandy loam soils and calcareous sandstone in the coastal plain of Israel (Zohary, 1966; Polak, 1984a). It is currently confined to the Sharon Plain, and is on the verge of global extinction as its total gene pool consists of only two surviving populations (Dafni & Heyn, 1978; Rottenberg, 2001; Rottenberg & Parker, 2003).

Etymology. The Hebrew name *Hūm'at HaAviron* (translated as "the airplane Rumex"), which was coined and published by Eig (Eig et al., 1931), has been commonly used since. It was approved as the Hebrew name for *Rumex rothschildianus* by The Academy of the Hebrew Language (Committee,

2000: 11). The reinstatement of Eig's scientific name would also restore the accord between the scientific name and the Hebrew name, as originally intended by Eig.

Specimens examined. ISRAEL. **Philistean Plain:** Bene-Beraq, 2 Apr. 1927, N. Naftolsky s.n. (HUJ); Bene-Beraq, Apr. 1928, N. Naftolsky s.n. (HUJ); Bene-Beraq, 21 Apr. 1930, N. Naftolsky s.n. (HUJ). **Sharon Plain:** environs of Natanya, 1 Apr. 1947, M. Zohary s.n. (HUJ); Udim, 29 Mar. 1951, N. Feinbrun & N. Haran s.n. (HUJ); N de Binyamina, 5 Apr. 1953, H. R. Oppenheimer s.n. (AAR); Wadi Falik, 22 Mar. 1956, C. Ginsburg s.n. (HUJ); Binyamina, Warburg neighborhood, 4 Apr. 1973, M. Evenari s.n. (AAR); Binyamina, 25 Mar. 1976, R. Berliner s.n. (HUJ); near Caesarea, Spring 1977, M. Samsonov s.n. (HUJ); S of Shefayim, 27 Apr. 1977, A. Ben-Yizhak s.n. (HUJ).

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